

**AMENDMENTS TO THE CLAIMS:**

Amend the claims as follows:

Claims 1-14. (Canceled)

15. (Currently Amended) An isolated and purified human immunodeficiency virus type 1 (HIV-1) mutant GP120gp120 envelope glycoprotein comprising an amino acid mutation in position 112, ~~according to the amino acid numbering of Kwong et al, Nature, Vol. 393, 18 June 1998, said mutation in position 112~~ consisting of replacement of W with S, I, or F, wherein said numbering scheme is based upon the molecular clone HxBc2 or I or F.

16. (Previously Presented) The mutant of claim 15 further comprising at least one mutation of S at position 338 or position 427 for W or F at position 96 for W.

17. (Currently Amended) An isolated and purified human immunodeficiency virus type 1 (HIV-1) mutant GP120gp120 envelope glycoprotein comprising an amino acid mutation in position 427 consisting of replacement of W with S wherein said numbering scheme is based upon the molecular clone HxBc2, or in position 338 consisting of replacement of W with S wherein said numbering scheme is based upon the molecular clone HxBc2, ~~according to the amino acid numbering of Kwong et al, Nature, Vol. 393, 18 June 1998, said mutation consisting of replacement of W with S.~~

Claims 18-20. (Canceled)